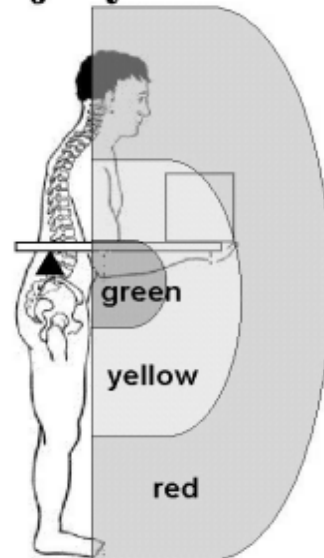


Ergonomics

1. The science and art of fitting the job and the workplace to workers' needs.
2. *Use your brain, not your back. Fix the job, not the worker. Work smarter, not harder.*
3. General ergonomic hazards or risk factors
 1. awkward postures
 2. forceful exertions
 3. repetitive motions
 4. prolonged activities
 5. contact stress
 6. vibration
 7. temperature
 8. psychosocial stressors

manual handling injury zones





Best Practices from consultation visits and other sources

1. Resident lifting and transfers

| Ergonomic hazards | Solutions |
|--|--|
| <p><u>Awkward postures and forceful exertions</u>: moving, picking up, and transferring residents.</p> | <ul style="list-style-type: none">• Provide lifting and moving mechanical aids, and training on using these aids.• In OR-OSHA’s <u>A Back Injury Prevention Guide for Health Care Providers</u>, review: <u>Click here to go to guide</u> Tool 1. Patient and Resident Handling Checklist. Tool 2. Work Task Analyzer. Tool 3. Equipment Design Checklist. Tool 4. Facility Design Checklist. Tool 5. Administrative Checklist.• Provide resident transfer training and problem solving during orientation and in services. Training should include “hands on” doing physical transfers. Pair new CNA’s with more experienced ones during on-the-job training. Use physical therapy resources for the training and to help do spot check observations. Do quarterly observations where staff demonstrate competence (formal/informal).• To help the supervisors and the safety committee do more effective employee injury investigations to identify root causes and solutions, provide them with basic accident investigation training. OR-OSHA’s Education Section’s web site (<u>click here to go to the Education page</u>) may be able to help you with this training. |

2. Dietary services

| Ergonomic hazards | Solutions |
|---|--|
| <p>Supplies</p> <p><u>Awkward postures and forceful exertions:</u> bending and reaching when lifting, moving and unpacking cases at floor level and carrying heavy food supplies to and from storage areas.</p> | <ul style="list-style-type: none"> • Have food deliverers bring the food supplies directly to the storage rooms. • Store the heaviest items on the middle shelves to reduce bending and reaching. • Unpack cartons and place individual containers on the shelves. • Transport heavy items from storage on a cart. |
| <p>Mixer too high</p> <p><u>Awkward postures:</u> Shorter employees have to reach up to work in the mixer bowl. They also have trouble seeing into tall pots on the stove and stand on a plastic foot stool.</p> | <ul style="list-style-type: none"> • Lower the counter height under the mixer and/or have the shorter employees stand on a sturdy, stable single-step stool. |
| <p>Mixer too low</p> <p><u>Awkward postures and forceful exertions:</u> bending, twisting and reaching when lifting full bowl from floor level up to the work counter.</p>  | <ul style="list-style-type: none"> • Place the mixer on a table so the bowl can be slid on to the work surface and the work can be done at waist level.  |

| 2. Dietary services continued | |
|---|---|
| Problems | Solutions |
| <p>Standing</p> <p><u>Prolonged activities:</u> Standing on the hard floor in one place.</p> | <ul style="list-style-type: none"> • Provide slip-resistant, cleanable floor mats at the salad prep area, dishwasher, cook sink, steam table and other areas where employees stand in one place. |
| <p>Tray line</p> <p><u>Awkward postures, repetitive motions, and forceful exertions:</u></p> <p>Extended reaching and lifting when placing over 100 food trays on the conveyor and removing them (12-13 pounds each) from the conveyor three times per day.</p> <p>Pushing tray carts.</p> | <ul style="list-style-type: none"> • The food tray conveyor height has been lowered, which employees like. • Reduce the extended reach when the trays are placed on and removed from the conveyor. • Work with the employees to devise a solution that doesn't make another part of the job more difficult. Ideas discussed included extending each end of the conveyor closer to the loader and unloader, either with a small conveyor section or sheet metal to slide the trays on or off. • Reorganize or decentralize the meal service to reduce the handling and repetition. • Lubricate casters on tray carts to reduce pushing and pulling forces |

3. Laundry

| Ergonomic hazards | Solutions |
|---|--|
| <p><u>Awkward postures, repetitive motions and forceful exertions:</u> Bending and reaching into carts to remove wet or dry linen.</p> <p>Sorting linen on the floor.</p> <p><u>Awkward postures:</u> bending and reaching to fold clean linen.</p> | <ul style="list-style-type: none"> • Do all work between waist and elbow height without extended reaches, and reduce manual handling steps. Examples include collecting laundry on carts, raising washers, and providing sorting and folding tables of different heights to accommodate different workers. • Place linen in carts with spring-loaded bottoms, that rise up as the linen is removed, or put false bottoms in barrels to reduce bending and reaching. Select spring mechanisms that go low enough to use the full capacity of the carts. Different springs are available for different load weights; so, the carts should be “calibrated” to either wet or dry linen. Because wet linen is much heavier than dry linen, different carts should be used for wet and dry. If linen falls under or gets caught along the sides of the spring-loaded bottom, line the inside of the cart with a sheet. • Select washers with a “detangling” feature, to reduce the weights of wet laundry removed. • Use automatic soap dispensing systems to reduce manual handling of heavy soap containers. |


4. Housekeeping

| Ergonomic hazards | Solutions |
|---|--|
| <p><u>Awkward postures and repetitive motions</u>: Mopping floors, dusting, cleaning whirlpools.</p> | <ul style="list-style-type: none"> • Use a floor cleaning machine instead of hand mopping. • Use long or extendable handles for dusting stair cases or cleaning whirlpools. • Purchase spas with a removable side, allowing the cleaning person to reach in from the side. This also reduces the injury risks when moving the resident into and from the spa. |
| <p><u>Forceful exertions</u>: lifting and moving mattresses, carrying supplies and equipment.</p> | <ul style="list-style-type: none"> • Purchase lighter mattresses. • Use carts to push supplies and equipment around. |
| <p><u>Contact stresses</u>: Knees on the floor during floor care.</p> | <ul style="list-style-type: none"> • Use knee pads during floor care. |
| <p><u>Awkward postures and falls</u>: Reaching to place cubicle curtains in the tracks when standing on either a rolling staircase or stepladder.</p> | <ul style="list-style-type: none"> • Reduce the extended reaching by using either a higher rolling staircase or by having a taller person replace the curtains. |

5. Medication dispensing

| Ergonomic hazards | Solutions |
|---|--|
| <p>Blister packs</p> <p><u>Forceful exertions and repetitive motions</u>: thumb dispensing meds from blister packs.</p> | <ul style="list-style-type: none"> • Work with the pharmacy to get a lighter blister-pack backing material that reduces the force required. • Meet with the nursing staff to problem solve ways to reduce the forceful exertions and/or repetitive motions, particularly when a large number are dispensed or opened at a single time. • A blister pack opening device (Thumbsaver) that attaches to the thumb is available. The device does reduce the amount of force required. Using a pen to help push the med out is another work practice. If the meds are to be discarded, precutting the foil side is another option. |
| <p>Pushing med carts</p> <p><u>Awkward postures and contact stresses</u>: hands gripping cart handles because handles are flat and hard.</p> | <ul style="list-style-type: none"> • Replace the handles with ones that are round, cushioned and have a grip diameter of about 1.5 inches. • If retrofit handles are not available, wrap the current ones with cushioning foam. |

6. Office and reception area

| Ergonomic hazards | Solutions |
|--|---|
| <p><u>Awkward postures:</u> Arms elevated above elbow height because keyboard is too high.</p> <p>Tilting neck back because monitor is too high.</p> <p>Twisting and tilting neck to view printed documents off to the side.</p>  | <ul style="list-style-type: none">• Put the keyboard and mouse on an under-counter pullout keyboard tray. This would free up counter space.• Lower the chair so the user can rest the feet squarely on the floor with the knees bent at right angles, or provide a foot rest.• Lower the monitor height so the top line of the computer document viewing is about 15 degrees below eye level, the natural resting eye position.• Position documents on a holder close to and in the same plane as the monitor.• Review the OR-OSHA Video Display Terminal guidelines booklet. |